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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/174,551	10/19/1998	MASAKI WATANABE	043034-0135	5816

7590 10/24/2002
FOLEY & LARDNER
3000 K STREET NW
SUITE 500
PO BOX 25696
WASHINGTON, DC 200078696

EXAMINER

POON, KING Y

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/24/2002

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/174,551	Applicant(s) WATANABE, MASAKI	
	Examiner King Y. Poon	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 07 August 2002.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 7-15 and 21-29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 7-15 and 21-29 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 07 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____
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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 7-15, 21-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 7, 13, 21-24: Newly added claimed limitations of “sequentially available ...print data expanders” is subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 8-12, 14, 15, 25-29: Claims 8-12, 14, 15, 25-29, are rejected under 35 U.S.C. 112, first paragraph because they depend on rejected claims 7 and 13, 21-24.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7-15, 21-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaka (U.S. Patent # 5,511,156).

Regarding claim 7: Nagasaka teaches a network system (fig. 2) composed of a print server computer (6a, fig. 2, having server process 211, column 5, lines 40-50) and a plurality of client computers, (6a, 6b, 6c, fig. 2, having a client process, column 5, lines 40-50) wherein each of the print server computer and the plurality of client computers has a print data expander (rasterizer 212, column 7, lines 5-15) for expanding print data to bit-map band data, (small portions, column 6, lines 60-65) in parallel, (column 6, lines 25-30) wherein each of the plurality of client computers comprises: a page divider (216 of column 6, lines 59-67, column 22, lines 40-45) for dividing generated print data for each page into a plurality of bands, (graphic area, column 24 table 3, fig. 27, small portions, column 6, lines 60-65) wherein the generated print data is generated by an application; (column 6, lines 1-15) and a transfer controller (210, column 6, lines 65-67, column 7, lines 1-5) for transferring a sequentially selected (see the group are arranged in a sequence of 1, 2, 3, . . . , N to be selected by client process 210, column 23, lines 45-67, column 24, line 1-25, and table 3) one of the bands to a sequentially (fig. 6) available (usable, column 7

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line 51, fig. 6, fig. 7) one of print data expanders of the print server computer (column 6, lines 25-30) and other client computers, (212 of other computers, column 7, lines 1-10), the transfer being performed without grouping the bands (see respective small portions of divided code are sent to respective processor, column 6, lines 60-67, column 7, lines 1-5, i.e., each small portion being sent to a processor is a band, the band being sent to a particular processor will not be group with other bands and sent to another processor) wherein expanded bit-map band data by the print data expander of each client computer is transferred to the print server computer, (column 7, lines 5-27) and the print server computer comprises: a combiner (220 of column 7, lines 24-27) for combining bit-map band data expanded by the print data expander of the print server computer and the expanded bit-map band data received from at least one of the client computers to produce combined bit-map band data corresponding to the generated print data.

Regarding claim 8: Nagasaka teaches wherein the transfer controller (210, column 6, lines 65-67, column 7, lines 1-5) selects one band from the bands in sequence (see the group are arranged in a sequence of 1, 2, 3, . . . , N to be selected by client process 210, column 24, line 10-25, and table 3) and further selects an available one of the print data expanders of the print server computer and the other client computers by checking a print data expanding process status (column 7, lines 50-67, fig. 7, column 9) received from each of the print server computer and the other client computers, column 11, lines 33-50) and then transfers a selected band to a selected print data expander. (Column 6, lines 59-67, column 7, lines 1-5)

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Regarding claims 9, 10: Nagasaka teaches wherein, when receiving a band (partial files, abstract) from another print data expander, (see rasterizer/expander generates a print request, (abstract) which distribute the PDL translation processing to all computers, column 6, line 25-29) each of the plurality of print data expanders expands the received band to bit-map band data, (column 7, lines 1-25) sets a print data expanding process status of a print data expander of its own to unavailable (error code, column 8, lines 63-64, fig. 7) while expanding the received band, and resets the print data expanding process status to available when the expanding process of the received band has been completed, (normal end code, column 8, line 63, fig. 7) wherein the print data expanding process status is used to determine whether a corresponding print data expander is available. (29, fig. 7)

Regarding claim 11: Nagasaka teaches wherein the page divider divides the generated print data for each page into the bands which are numbered from top of a page in sequence. (Fig. 27, graphic form group, table 3 of column 24 teaches to number the groups in the sequence of 1, 2, . . . , N)

Regarding claim 12: Nagasaka teaches wherein the combiner (220 of column 7, lines 24-27) receives the bit-map band data expanded by the print data expander of the print server computer (6a, column 6, line 19) and the expanded bit-map band data received from the at least one of the client (6b, 6c, column 6 lines 20-30) computers, (column 7, lines 15-27, column 6, lines 25-30) determines whether the bit-map band data are received in original sequence of the bands, (see 220 arrange and the received print element groups according to table 3, column 24 line 10-

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25, and check conversion status of column 25 line 5-20) rearranges (column 25, lines 1-5) the bit-map band data in the original sequence when a sequence of the bit-map band data is not identical to the original sequence, (one group is converted before the other, column 25 line 5-20) and reproduces (synthesize, column 7, line 25) the combined bit-map band data corresponding to the generated print data.

Regarding claim 13: Claim 13 is claiming method steps of the apparatus disclosed in claim 7. Please see discussion on claim 7.

Regarding claim 14: Nagasaka teaches at the client computer, selecting one from the sequential bands in sequence; (see the respective portion of the divided code, (group) are selected to be transmitted to a respective interpreter of a computer, column 6 line 65-67, column 7 line 1-3) selecting an available one of the print server computer and the client computer by checking print data expanding process statuses thereof; (fig. 6, fig. 7) transferring a selected band to a selected computer; (column 7, lines 42-59; the respective portion of the divided code, (group) are selected to be transmitted to a respective interpreter of a computer, column 6 line 65-67, column 7 line 1-3) expanding a client-received band to bit-map band data; (column 7, lines 5-15) and setting a print data expanding client process status to unavailable (error code, column 8, lines 63-64, fig. 7) while expanding the client-received band and resetting the print data expanding client process status to available (normal end code, column 8, line 63, fig. 7) when a print data expanding process of the client-received band has been completed, and at the print server computer, expanding a server-received band to bit-map band data; (column 7, lines 5-15) and

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setting a print data expanding server process status to unavailable (error code, column 8, lines 63, fig. 7) while expanding the client-received band and resetting the print data expanding server process status to available (normal end code, column 8, line 63, fig. 7) when a print data expanding process of the client-received band has been completed.

Regarding claim 15: Nagasaka teaches wherein the combiner (220 of column 7, lines 24-27) receives the bit-map band data expanded by the print data expander of the print server computer (6a, column 6, line 19) and the expanded bit-map band data received from the at least one of the client (6b, 6c, column 6 lines 20-30) computers, (column 7, lines 15-27, column 6, lines 25-30) determines whether the bit-map band data are received in original sequence of the bands, (see 220 arrange and the received print element groups according to table 3, column 24 line 10-25, and check conversion status of column 25 line 5-20) rearranges (column 25, lines 1-5) the bit-map band data in the original sequence when a sequence of the bit-map band data is not identical to the original sequence, (one group is converted before the other, column 25 line 5-20) and reproduces (synthesize, column 7, line 25) the bit-map data corresponding to the generated print data.

Regarding claim 21: Nagasaka teaches a network system (fig. 2) comprising a print server computer (6a, fig. 2, having server process 211, column 5, lines 40-50) and a plurality of client computers, (6a, 6b, 6c, fig. 2, having a client process, column 5, lines 40-50) wherein each of the plurality of client computers comprises: a first print data expander (rasterizer 212, of the client computers, column 7, lines 5-15) for expanding print data to bit-map band data; (small portions,

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column 6, line 60-65) a page divider (216 of column 6, lines 59-67, column 22, lines 40-45) for dividing generated print data for each page into a plurality of bands, (e.g., graphic area, column 24, table 3, fig. 27, small portions, column 6, lines 60-65) wherein the generated print data is generated by an application; (column 6, lines 1-15) and a transfer controller (210, column 6, lines 65-67, column 7, lines 1-5) for transferring a sequentially selected (see the group are arranged in a sequence of 1, 2, 3, . . . , N to be selected by client process 210, column 23, lines 45-67, column 24, line 1-25, and table 3) one of the bands to a sequentially (fig. 6) available (usable, column 7 line 51, fig. 6, fig. 7) one of print data expanders of the print server computer (column 6, lines 25-30) and other client computers, (212 of other computers, column 7, lines 1-10), the transfer being performed without grouping the bands (see respective small portions of divided code are sent to respective processor, column 6, lines 60-67, column 7, lines 1-5, i.e., each small portion being sent to a processor is a band, the band being sent to a particular processor will not be group with other bands and sent to another processor), wherein expanded bit-map band data by the print data expander of each client computer is transferred to the print server computer, (column 7, lines 5-27) the print server computer comprising: a second print data expander (rasterizer 212, of the computer 6a, column 7, lines 5-15) for expanding print data received from at least one of the client computers to bit-map band data in parallel with the first print data expander; (column 6, lines 25-30) a combiner (220 of column 7, lines 24-27) for combining bit-map band data expanded by the print data expander of the print server computer and the expanded bit-map band data

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received from at least one of the client computers to produce combined bit-map band data corresponding to the generated print data.

Regarding claim 22: Nagasaka teaches a client computer (6a, fig. 2, having a client process, column 5, lines 40-50) in a network system (fig. 2) comprising a print server computer (6a, fig. 2, having server process 211, column 5, lines 40-50, for sending print data to a printer, column 7, lines 25-35) and a plurality of client computers, (6b, 6c, fig. 2) the client computer comprising: a print data expander (rasterizer 212, column 7, lines 5-15) for expanding print data to bit-map band data; (small portions of print data, column 6, lines 60-65) a page divider (216 of column 6, lines 59-67, column 22, lines 40-45) for dividing generated print data for each page into a plurality of bands, (graphic area, column 24 table 3, fig. 27) wherein the generated print data is generated by an application; (column 6, lines 1-15) and a transfer controller (210, column 6, lines 65-67, column 7, lines 1-5) for transferring a sequentially selected (see the group are arranged in a sequence of 1, 2, 3, . . . , N to be selected by client process 210, column 23, lines 45-67, column 24, line 1-25, and table 3) one of the bands to a sequentially (fig. 6) available (usable, column 7 line 51, fig. 6, fig. 7) one of print data expanders of the print server computer (column 6, lines 25-30) and other client computers, (212 of other computers, column 7, lines 1-10) the transfer being performed without grouping the bands (see respective small portions of divided code are sent to respective processor, column 6, lines 60-67, column 7, lines 1-5, i.e., each small portions being sent to a processor is a band, the band being send to a particular processor will not be group with other bands and sent to another processor), wherein expanded bit-map band data by the print data

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expander of each client computer is transferred to the print server computer, (column 7, lines 5-27) wherein the print server computer combines (column 7, lines 24-27) bit-map band data expanded by the printer server computer and the expanded bit-map band data received from at least one of the client computers to produce combined bit-map band data corresponding to the generated print data.

Regarding claims 23, and 24: Claims 23, 24 are claiming program steps of the apparatus disclosed in claims 21, 22. Please see discussion on claims 21, 22.

Regarding claims 25-28: Nagasaka teaches wherein when one of the print data expanders finishes expanding a transferred band of print data, (e.g., light load, fig. 7) then the one of the print data expanders notifies the transfer controller that the one of the print data is available, (e.g., yes, from 14 to 15, fig. 6) and if the transfer controller has not already transferred each of the plurality of bands, then the transfer controller transfers sequentially a next one of the plurality of bands (e.g., 15, fig. 6) to the one of the print data expanders.

Regarding claim 29: Nagasaka teaches receiving a notification (e.g., yes, from 14 to 15, fig. 6) from one of the print data expander when the one of the print data expanders finishes expanding a transferred band of print data, (e.g., light load, fig. 7) and after receiving the notification, transferring a next sequential band of print data (e.g., 15, fig. 6) to the one of the print data expander of each of the plurality bands have not already been transferred.

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Response to Arguments

6. Applicant's arguments filed 8/7/2002 have been fully considered but they are not persuasive.

The title has not amended because the title is not under "please amend the application as follows:" instruction. Please instruct the office to amend the title.

With respect to applicant argument that Nagasaka does not teach sequentially transfer to sequentially available print data expander, has been considered.

In reply: Nagasaka, fig. 6, teaches that the server process (sending the divided portions of image data, column 7, lines 1-5 to computer) are carried out one at a time (in a sequence) to available print data expander (the computer that receives the divided portions of image data, column 7, lines 1-5) one at a time. (In a sequence/sequentially)

With respect to applicant's argument that Nagasaka does not teach without grouping the bands, has been considered.

In reply: Nagasaka teaches respective small portions (band) of divided code are sent to respective processors, column 6, lines 60-67, column 7, lines 1-5. In other words, each small portion of divided code being sent to a processor is a band, the band being sent to a particular processor will not be group with other bands that is being sent to another processor because they are going to different processors.

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With respect to applicant's argument the Nagasaka does not teach when one of the processing unit completes the processing the partial file and becomes available, the requesting unit may send the processing unit another partial file, has been considered.

In reply: Column 8, lines 1-15, Nagasaka teaches to request the load status of processing unit and sent the processing unit a partial file to process. Column 24, lines 1-5, Nagasaka further teaches the processor would be further used to process a partial file when the processor finished processing another partial file.

7. ACTION IS FINAL

This is a continuation of applicant's earlier Application No. 09/112,759. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next office action if they had been entered in the earlier application. Accordingly, THIS ACTION IS MADE FINAL even though it is the first action in the case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTHS shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

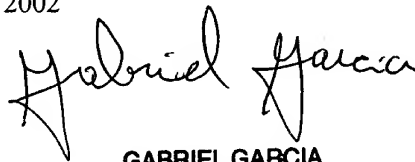
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1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

October 22, 2002

A handwritten signature in black ink that reads "Gabriel Garcia". The signature is written in a cursive, flowing style.

GABRIEL GARCIA
PRIMARY EXAMINER